

WHAT IS CLAIMED IS:

1. A method of performing financial processing in one or more computers, comprising:
  - (a) selecting accounts, amounts and rates from account data stored in a database
  - 5 using selection criteria specified by one or more rules; and
  - (b) performing one or more Future Value (FV) calculations on the selected accounts by applying one or more FV propensity rules to the selected accounts using the selected amounts and rates, wherein the FV calculations determine a present value of an expected profitability of additional products that may be purchased.
- 10 2. The method of claim 1, wherein the step of performing the FV calculations comprises applying the propensity rules to the selected accounts and applying attrition rules to results of the propensity rules.
- 15 3. The method of claim 1, wherein the FV is a possible future profitability value.
4. The method of claim 1, wherein the selected accounts contain current profitability values.
- 20 5. The method of claim 4, wherein the current profitability data is aggregated to provide an initial amount for the FV calculations.
6. The method of claim 1, wherein the selected amounts are forecast
- 25 amounts.
7. The method of claim 1, wherein the selected rates are FV propensity rates.
8. The method of claim 1, wherein a user specifies one or more forecast
- 30 periods over which the FV calculations are performed.

9. The method of claim 8, wherein a user specifies one or more rates for the forecast periods.

10. The method of claim 1, wherein the step of applying the FV propensity rules comprises:  
5 matching the FV propensity rule against the selected accounts;  
determining an initial propensity rate for the matched accounts;  
calculating a rate change for the matched account;  
calculating an effective propensity rate for each forecast period by applying the  
10 rate change to each initial propensity rate for each forecast period;  
performing the FV propensity rule to calculate an FV amount from FV expected values and the effective propensity rates for each forecast period; and  
storing the FV amount.

11. The method of claim 1, wherein the FV propensity rule comprises a Constant (no compounding) method according to:

$$\text{Amount}_i = \text{Amount}_0 * (1 + R_0) * ((k - j + 1) / 12)$$

20 Amount<sub>i</sub> = calculated amount by forecast period,  
Amount<sub>0</sub> = initial amount,  
R<sub>0</sub> = initial rate,  
i = forecast period,  
j = first month in a forecast period, and  
25 k = last month in a forecast period.

12. The method of claim 1, wherein the FV propensity rule comprises a Constant (with compounding) method according to:

30 
$$\text{Amount}_i = \text{Amount}_0 * (1 + R_m)^i * ((k - j + 1) / 12)$$

Amount<sub>i</sub> = calculated amount by forecast period,

Amount<sub>0</sub> = initial amount,

R<sub>m</sub> = monthly rate,

i = forecast period,

5 j = first month in a forecast period, and

k = last month in a forecast period.

13. The method of claim 1, wherein the FV propensity rule comprises an Additive (no compounding) method according to:

10

$$\text{Amount}_i = \text{Amount}_0 * (1 + i * (R_0 / 12)) * ((k - j + 1) / 12)$$

Amount<sub>i</sub> = calculated amount by forecast period,

Amount<sub>0</sub> = initial amount,

15 R<sub>0</sub> = initial rate,

i = forecast period,

j = first month in a forecast period, and

k = last month in a forecast period.

20 14. The method of claim 1, wherein the FV propensity rule comprises an Additive (with compounding) method according to:

$$\text{Amount}_i = \text{Amount}_0 * (1 + \text{Compounded\_Rate} * ((k - j + 1) / 12))$$

25 Amount<sub>i</sub> = calculated amount by forecast period,

Amount<sub>0</sub> = initial amount,

i = forecast period,

j = first month in a forecast period,

k = last month in a forecast period, and

30 Compounded\_Rate = Rate<sub>1</sub> \* Rate<sub>2</sub> \* ... \* Rate<sub>i</sub>.

15. The method of claim 1, wherein the FV propensity rule comprises a Manual (no compounding) method according to:

$$\text{Amount}_i = \text{Amount}_0 * (1 + R_{\text{man}}) * ((k - j + 1) / 12)$$

5

$\text{Amount}_i$  = calculated amount by forecast period,

$\text{Amount}_0$  = initial amount,

$R_{\text{man}}$  = manual rate,

$i$  = forecast period,

10  $j$  = first month in a forecast period, and

$k$  = last month in a forecast period.

16. The method of claim 1, wherein the FV propensity rule comprises a Manual (with compounding) method according to:

15

$$\text{Amount}_i = \text{Amount}_0 * (1 + \text{Compounded\_Rate} * ((k - j + 1) / 12))$$

$\text{Amount}_i$  = calculated amount by forecast period,

$\text{Amount}_0$  = initial amount,

20  $i$  = forecast period,

$j$  = first month in a forecast period,

$k$  = last month in a forecast period, and

$\text{Compounded\_Rate} = \text{Rate}_1 * \text{Rate}_2 * \dots * \text{Rate}_i$ .

25 17. The method of claim 1, wherein the FV propensity rule comprises a Constant method according to:

$$\text{Amount}_i = \text{Amount}_0$$

30  $\text{Amount}_i$  = calculated amount by forecast period,

Amount<sub>0</sub> = initial amount, and

i = forecast period.

18. The method of claim 1, wherein the FV propensity rule comprises a  
5 Negative Compounding method according to:

Amount<sub>i</sub> = Initial Forecast Amount \* (Attrition Rate \* (1 - Attrition Rate)<sup>n</sup>)

Amount<sub>i</sub> = calculated amount by forecast period,

10 Amount<sub>0</sub> = initial amount,

i = forecast period, and

n = amortization term.

19. A system for performing financial processing, comprising:

15 one or more computers;

logic, performed by the computers, for:

(a) selecting accounts, amounts and rates from account data stored in a  
database using selection criteria specified by one or more rules; and

(b) performing one or more Future Value (FV) calculations on the selected  
20 accounts by applying one or more FV propensity rules to the selected accounts  
using the selected amounts and rates, wherein the FV calculations determine a  
present value of an expected profitability of additional products that may be  
purchased.

- 25 20. The system of claim 19, wherein the step of performing the FV  
calculations comprises applying the propensity rules to the selected accounts and  
applying attrition rules to results of the propensity rules.

21. The system of claim 19, wherein the FV is a possible future profitability  
30 value.

22. The system of claim 19, wherein the selected accounts contain current profitability values.

23. The system of claim 22, wherein the current profitability data is  
5 aggregated to provide an initial amount for the FV calculations.

24. The system of claim 19, wherein the selected amounts are forecast amounts.

10 25. The system of claim 19, wherein the selected rates are FV propensity rates.

26. The system of claim 19, wherein a user specifies one or more forecast periods over which the FV calculations are performed.

15 27. The system of claim 26, wherein a user specifies one or more rates for the forecast periods.

28. The system of claim 19, wherein the logic for applying the FV propensity  
20 rules comprises:

logic for matching the FV propensity rule against the selected accounts;  
logic for determining an initial propensity rate for the matched accounts;  
logic for calculating a rate change for the matched account;  
logic for calculating an effective propensity rate for each forecast period by  
25 applying the rate change to each initial propensity rate for each forecast period;  
logic for performing the FV propensity rule to calculate an FV amount from FV expected values and the effective propensity rates for each forecast period; and  
logic for storing the FV amount.

30 29. The system of claim 19, wherein the FV propensity rule comprises a Constant (no compounding) method according to:

$$\text{Amount}_i = \text{Amount}_0 * (1 + R_0) * ((k - j + 1) / 12)$$

Amount<sub>i</sub> = calculated amount by forecast period,

5 Amount<sub>0</sub> = initial amount,

R<sub>0</sub> = initial rate,

i = forecast period,

j = first month in a forecast period, and

k = last month in a forecast period.

10

30. The system of claim 19, wherein the FV propensity rule comprises a Constant (with compounding) method according to:

$$\text{Amount}_i = \text{Amount}_0 * (1 + R_m)^i * ((k - j + 1) / 12)$$

15

Amount<sub>i</sub> = calculated amount by forecast period,

Amount<sub>0</sub> = initial amount,

R<sub>m</sub> = monthly rate,

i = forecast period,

20 j = first month in a forecast period, and

k = last month in a forecast period.

31. The system of claim 19, wherein the FV propensity rule comprises an Additive (no compounding) method according to:

25

$$\text{Amount}_i = \text{Amount}_0 * (1 + i * (R_0 / 12)) * ((k - j + 1) / 12)$$

Amount<sub>i</sub> = calculated amount by forecast period,

Amount<sub>0</sub> = initial amount,

30 R<sub>0</sub> = initial rate,

i = forecast period,  
j = first month in a forecast period, and  
k = last month in a forecast period.

- 5            32.     The system of claim 19, wherein the FV propensity rule comprises an Additive (with compounding) method according to:

$$\text{Amount}_i = \text{Amount}_0 * (1 + \text{Compounded\_Rate} * ((k - j + 1) / 12))$$

- 10           Amount<sub>i</sub> = calculated amount by forecast period,  
Amount<sub>0</sub> = initial amount,  
i = forecast period,  
j = first month in a forecast period,  
k = last month in a forecast period, and  
15           Compounded\_Rate = Rate<sub>1</sub> \* Rate<sub>2</sub> \* ... \* Rate<sub>i</sub>.

33.     The system of claim 19, wherein the FV propensity rule comprises a Manual (no compounding) method according to:

20           Amount<sub>i</sub> = Amount<sub>0</sub> \* (1 + R<sub>man</sub>) \* ((k - j + 1) / 12)

- Amount<sub>i</sub> = calculated amount by forecast period,  
Amount<sub>0</sub> = initial amount,  
R<sub>man</sub> = manual rate,  
25           i = forecast period,  
j = first month in a forecast period, and  
k = last month in a forecast period.

34.     The system of claim 19, wherein the FV propensity rule comprises a  
30     Manual (with compounding) method according to:



$$\text{Amount}_i = \text{Amount}_0 * (1 + \text{Compounded\_Rate} * ((k - j + 1) / 12))$$

$\text{Amount}_i$  = calculated amount by forecast period,

$\text{Amount}_0$  = initial amount,

5  $i$  = forecast period,

$j$  = first month in a forecast period,

$k$  = last month in a forecast period, and

$\text{Compounded\_Rate} = \text{Rate}_1 * \text{Rate}_2 * \dots * \text{Rate}_i.$

10 35. The system of claim 19, wherein the FV propensity rule comprises a Constant method according to:

$$\text{Amount}_i = \text{Amount}_0$$

15  $\text{Amount}_i$  = calculated amount by forecast period,

$\text{Amount}_0$  = initial amount, and

$i$  = forecast period.

20 36. The system of claim 19, wherein the FV propensity rule comprises a Negative Compounding method according to:

$$\text{Amount}_i = \text{Initial Forecast Amount} * (\text{Attrition Rate} * (1 - \text{Attrition Rate})^n)$$

$\text{Amount}_i$  = calculated amount by forecast period,

25  $\text{Amount}_0$  = initial amount,

$i$  = forecast period, and

$n$  = amortization term.

37. An article of manufacture embodying logic for performing financial processing in one or more computers, the logic comprising:

(a) selecting accounts, amounts and rates from account data stored in a database using selection criteria specified by one or more rules; and

(b) performing one or more Future Value (FV) calculations on the selected accounts by applying one or more FV propensity rules to the selected accounts using the selected amounts and rates, wherein the FV calculations determine a present value of an expected profitability of additional products that may be purchased.

38. The article of claim 37, wherein the step of performing the FV calculations comprises applying the propensity rules to the selected accounts and applying attrition rules to results of the propensity rules.

39. The article of claim 37, wherein the FV is a possible future profitability value.

40. The article of claim 37, wherein the selected accounts contain current profitability values.

41. The article of claim 40, wherein the current profitability data is aggregated to provide an initial amount for the FV calculations.

42. The article of claim 37, wherein the selected amounts are forecast amounts.

43. The article of claim 37, wherein the selected rates are FV propensity rates.

44. The article of claim 37, wherein a user specifies one or more forecast periods over which the FV calculations are performed.

45. The article of claim 44, wherein a user specifies one or more rates for the forecast periods.

46. The article of claim 37, wherein the step of applying the FV propensity rules comprises:  
5 matching the FV propensity rule against the selected accounts;  
determining an initial propensity rate for the matched accounts;  
calculating a rate change for the matched account;  
calculating an effective propensity rate for each forecast period by applying the  
10 rate change to each initial propensity rate for each forecast period;  
performing the FV propensity rule to calculate an FV amount from FV expected values and the effective propensity rates for each forecast period; and  
storing the FV amount.

15 47. The article of claim 37, wherein the FV propensity rule comprises a Constant (no compounding) method according to:

$$\text{Amount}_i = \text{Amount}_0 * (1 + R_0) * ((k - j + 1) / 12)$$

20 Amount<sub>i</sub> = calculated amount by forecast period,  
Amount<sub>0</sub> = initial amount,  
R<sub>0</sub> = initial rate,  
i = forecast period,  
j = first month in a forecast period, and  
25 k = last month in a forecast period.

48. The article of claim 37, wherein the FV propensity rule comprises a Constant (with compounding) method according to:

30 
$$\text{Amount}_i = \text{Amount}_0 * (1 + R_m)^i * ((k - j + 1) / 12)$$

Amount<sub>i</sub> = calculated amount by forecast period,

Amount<sub>0</sub> = initial amount,

R<sub>m</sub> = monthly rate,

i = forecast period,

5 j = first month in a forecast period, and

k = last month in a forecast period.

49. The article of claim 37, wherein the FV propensity rule comprises an Additive (no compounding) method according to:

10

$$\text{Amount}_i = \text{Amount}_0 * (1 + i * (R_0 / 12)) * ((k - j + 1) / 12)$$

Amount<sub>i</sub> = calculated amount by forecast period,

Amount<sub>0</sub> = initial amount,

15 R<sub>0</sub> = initial rate,

i = forecast period,

j = first month in a forecast period, and

k = last month in a forecast period.

20 50. The article of claim 37, wherein the FV propensity rule comprises an Additive (with compounding) method according to:

$$\text{Amount}_i = \text{Amount}_0 * (1 + \text{Compounded\_Rate} * ((k - j + 1) / 12))$$

25 Amount<sub>i</sub> = calculated amount by forecast period,

Amount<sub>0</sub> = initial amount,

i = forecast period,

j = first month in a forecast period,

k = last month in a forecast period, and

30 Compounded\_Rate = Rate<sub>1</sub> \* Rate<sub>2</sub> \* ... \* Rate<sub>i</sub>.

51. The article of claim 37, wherein the FV propensity rule comprises a Manual (no compounding) method according to:

$$\text{Amount}_i = \text{Amount}_0 * (1 + R_{\text{man}}) * ((k - j + 1) / 12)$$

5

$\text{Amount}_i$  = calculated amount by forecast period,

$\text{Amount}_0$  = initial amount,

$R_{\text{man}}$  = manual rate,

$i$  = forecast period,

10  $j$  = first month in a forecast period, and

$k$  = last month in a forecast period.

52. The article of claim 37, wherein the FV propensity rule comprises a Manual (with compounding) method according to:

15

$$\text{Amount}_i = \text{Amount}_0 * (1 + \text{Compounded\_Rate} * ((k - j + 1) / 12))$$

$\text{Amount}_i$  = calculated amount by forecast period,

$\text{Amount}_0$  = initial amount,

20  $i$  = forecast period,

$j$  = first month in a forecast period,

$k$  = last month in a forecast period, and

$\text{Compounded\_Rate} = \text{Rate}_1 * \text{Rate}_2 * \dots * \text{Rate}_i$ .

25 53. The article of claim 37, wherein the FV propensity rule comprises a Constant method according to:

$$\text{Amount}_i = \text{Amount}_0$$

30  $\text{Amount}_i$  = calculated amount by forecast period,

Amount<sub>0</sub> = initial amount, and

i = forecast period.

54. The article of claim 37, wherein the FV propensity rule comprises a
- 5 Negative Compounding method according to:

$$\text{Amount}_i = \text{Initial Forecast Amount} * (\text{Attrition Rate} * (1 - \text{Attrition Rate})^n)$$

Amount<sub>i</sub> = calculated amount by forecast period,

10 Amount<sub>0</sub> = initial amount,

i = forecast period, and

n = amortization term.